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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,827	11/08/2001	Woo Sik Yoo	M-11914 US	3118

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EXAMINER

TRINH, MICHAEL MANH

ART UNIT PAPER NUMBER

2822

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

10/005,827

Applicant(s)

YOO, WOO SIK

Examiner

Michael Trinh

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-6 and 8-10 is/are allowed.
- 6) ☒ Claim(s) 1, 7 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

*** This office action is in response to Applicant's amendment filed on January 22, 2003.

Claims 11-12 were canceled. Claims 1-10 and 13-16 are currently pending.

*** The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

1. Claims 1, 7, and 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao et al (6,189,482).

Zhao et al disclose a system comprising a processing chamber 30 defining a processing area; and a first plate positioned within the processing chamber and defining a first internal cavity, with a buffer baffle 62 is for dispersing the gas, configured to receive a first gas, wherein and wherein the gas comprises N₂, He, H₂, O₂, Ar, and gas mixtures containing He, H₂, O₂, Ar, and N₂ (column 9, lines 33-49; Figs 2-3), through a first passage into the first internal cavity at a first temperature and to emit the first gas from the first internal cavity through an outlet portion 40 through a plurality of holes 42 at a second temperature (column 10, lines 49-65; and column 31, lines 35-60).

Allowable Subject Matter

2. Claims 2-6, 8-10 are allowed.

3. The following is a statement of reasons for the indication of allowable subject matter:

Claims 2 and 8 have been rewritten into independent form by Applicant, and thus allowable with dependent claims 3-6, and 9-10.

Response to Arguments

4. Applicant's remarks filed January 22, 2003 have been fully considered but they are not persuasive, and are also moot in view of the new ground(s) of rejection.

** Applicant mainly remarked (at remark pages 4-5) that

"...Zhao et al. discloses a liquid heat exchange system 6 which delivers liquid to various components of chamber 30 ' to maintain these components at a suitable temperature during the high temperature processing'...Zhao et al. is disclosing a system,

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which is used to keep the components of the system from overheating, similar to a radiator in an automobile. There is no teaching or suggestion in Zhao et al that a gas entering the system would enter at a first temperature and then emitted at a second temperature into a processing area”.

In response, this is noted and found unconvincing. Due to the high heating temperature during fabrication, the showerhead 40 as the first plate having a first internal cavity is also heated so that a first gas entering from a first passage 44 into the internal cavity at a first temperature is changed to a second temperature due to this high heating temperature. Indeed, the showerhead 40 having the outlets or holes 42 as the first plate may be heat up due to its proximity to the heater pedestal which may heat up to temperatures of at least 400°C or greater (column 31, lines 35-60. Accordingly, the first gas emitted form the internal cavity through a second outlet/hole passage 42 is inherently changed to a second temperature due to the high heating temperature.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

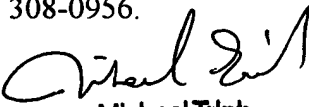
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael M. Trinh whose telephone number is (703) 308-2554. The examiner can normally be reached on M-F from 8:30 Am to 4:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (703) 308-4905. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Oacs



Michael Trinh
Primary Examiner